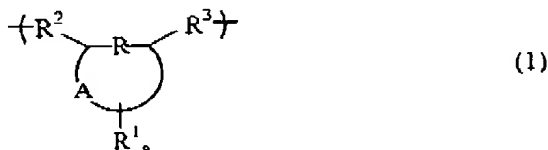


The following listing of claims will replace all prior versions, and listings, of claims in the application:

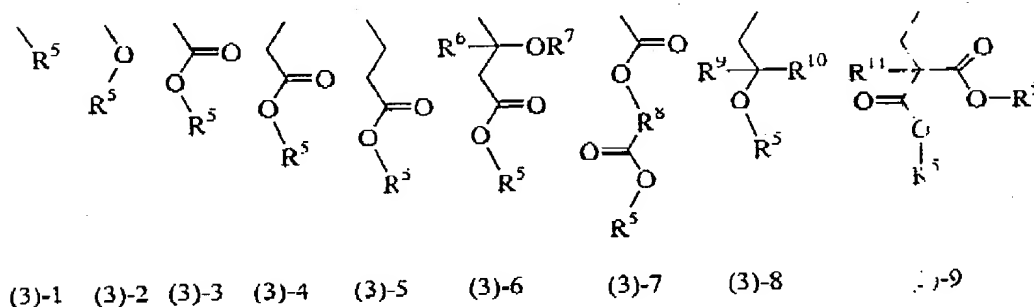
Listing of Claims:

1. (Currently Amended): A polymer comprising recurring units of a compound of formula (1):



wherein

A is a divalent aliphatic or alicyclic hydrocarbon group of 2 to 20 carbon atoms,
~~R¹ is an alkyl group containing at least one fluorine atom, and which optionally contains a hetero atom, selected from formulae (3)-1, (3)-2, (3)-3, (3)-4, (3)-5, (3)-6, (3)-7, (3)-8, and (3)-9~~



"a" is a positive number of 1 to 3,

R is a single bond, methylene group, oxygen atom, NH group or sulfur atom, and

R² and R³ each are a single bond or methylene group.

R⁵ is a fluorinated alkyl group which optionally contains an ether or ester bond.

R⁶ and R¹¹ are, each independently, hydrogen or a straight alkyl group of 1 to 10 carbon atoms.

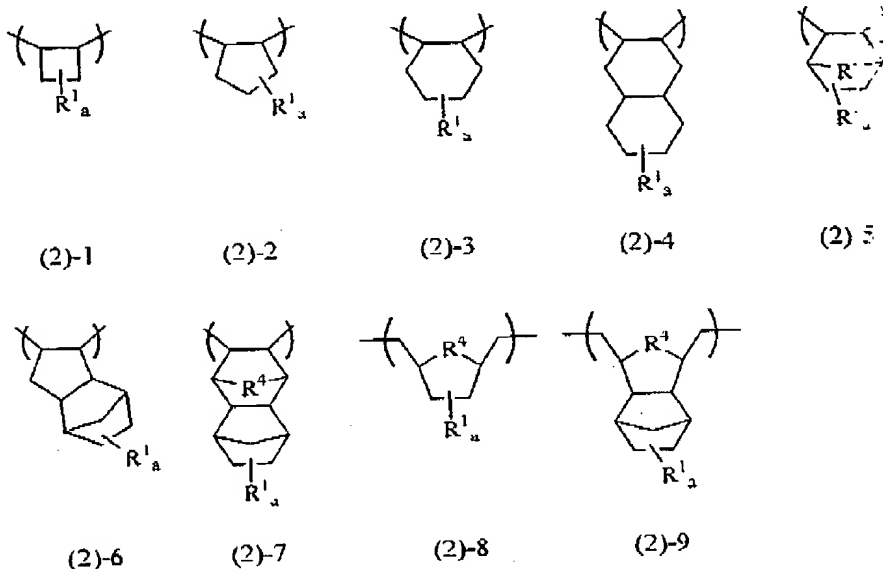
R⁷ is hydrogen, a straight alkyl group of 1 to 10 carbon atoms, or -C=O-R¹²
R¹² is hydrogen or a straight alkyl group of 1 to 10 carbon atoms, and
R⁸ is an alkylene group of 1 to 10 carbon atoms, and
either one or both of R⁹ and R¹⁰ are alkyl groups of 1 to 5 carbon atoms having at least one
fluorine atom substituted thereon.

2. (Original): The polymer of claim 1 further comprising recurring units containing acid labile groups.
3. (Previously Presented): A chemically amplified resist composition comprising the polymer of claim 1.
4. (Previously Presented): A chemically amplified positive resist composition comprising
 - (A) the polymer of claim 1,
 - (B) an organic solvent, and
 - (C) a photoacid generator.
5. (Original): The resist composition of claim 4 further comprising a basic compound.
6. (Original): The resist composition of claim 4 further comprising a dissolution inhibitor
7. (Original): A process for forming a resist pattern comprising the steps of:
applying the resist composition of claim 4 onto a substrate to form a coating,
heat treating the coating and then exposing it to high-energy radiation having a wavelength of up to 180 nm or electron beams through a photo mask, and
optionally heat treating the exposed coating and developing it with a developer.
8. (Previously Listed as the second Claim 7) (Cancelled)

9. (Previously Listed as Claim 8) (Cancelled):

10. 9. (Currently Amended): A polymer of claim 1, wherein R is a single bond or methylene.

11. 10. (Currently Amended): A polymer of claim 1, wherein the recurring units of formula (1) are selected from formulae (2)-1, (2)-2, (2)-3, (2)-4, (2)-5, (2)-6, (2)-7, (2)-8, and (2)-9

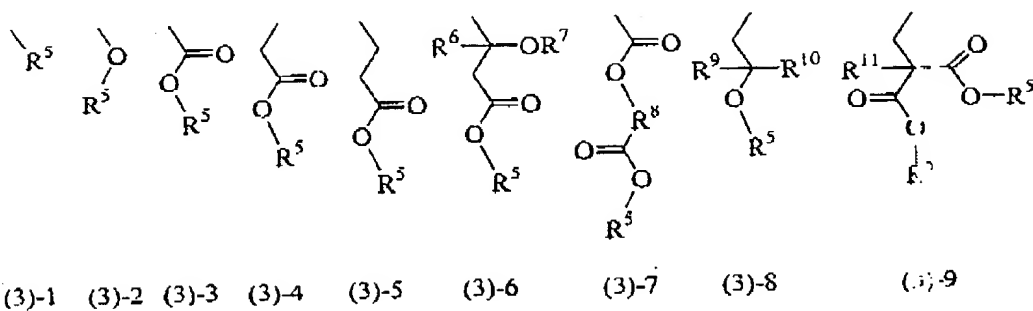


wherein

R^4 is a methylene group, oxygen atom, NH group or sulfur atom, and

"a" is a positive number of 1 to 3, and

R^1 is selected from formulae (3)-1, (3)-2, (3)-3, (3)-4, (3)-5, (3)-6, (3)-7, (3)-8, and (3)-9



wherein

R^5 is a fluorinated alkyl group which optionally contains an ether or ester bond;

R^6 and R^{11} are, each independently, hydrogen or a straight alkyl group of 1 to 11 carbon atoms;

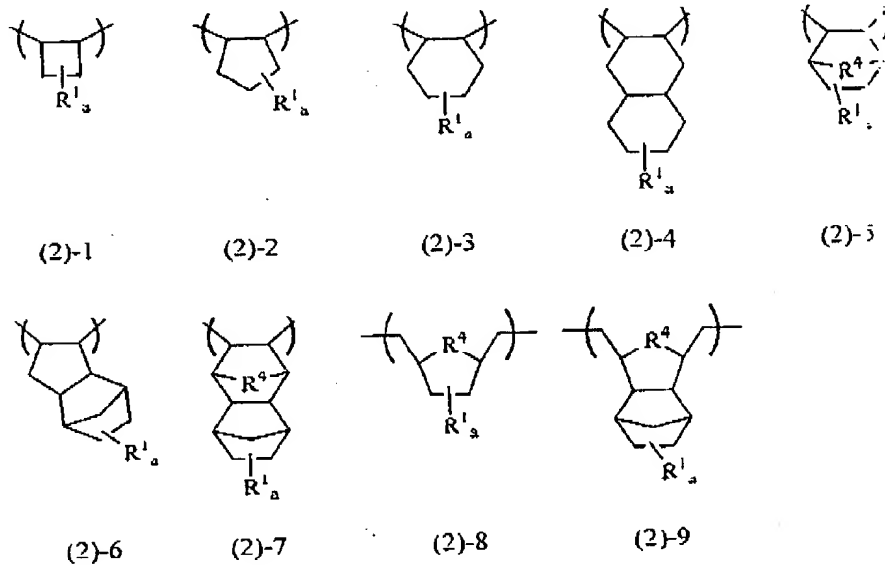
R^7 is hydrogen, a straight alkyl group of 1 to 10 carbon atoms, or $-C(=O)-R^{12}$;

R^{12} is hydrogen or a straight alkyl group of 1 to 10 carbon atoms; and

R^8 is an alkylene group of 1 to 10 carbon atoms;

wherein either one or both of R^9 and R^{10} are alkyl groups of 1 to 5 carbon atoms, having at least one fluorine atom substituted thereon.

12. +- (Currently Amended): A polymer of claim 1, wherein the recurring units of formula (1) are selected from formulae (2)-1, (2)-2, (2)-3, (2)-4, (2)-5, (2)-6, (2)-7, (2)-8, and (2)-9

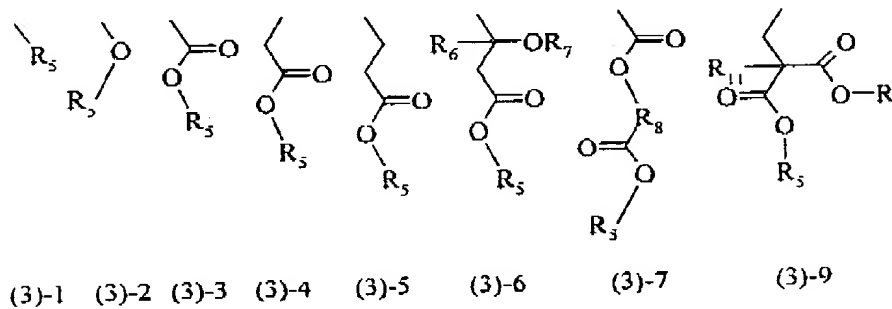


wherein

R^+ is a methylene group, oxygen atom, NH group or sulfur atom,

"a" is a positive number of 1 to 3, and

R^1 is selected from formulae (3)-1, (3)-2, (3)-3, (3)-4, (3)-5, (3)-6, (3)-7, and (3)-9.



wherein

R^5 is a fluorinated alkyl group which optionally contains an ether or ester bond,

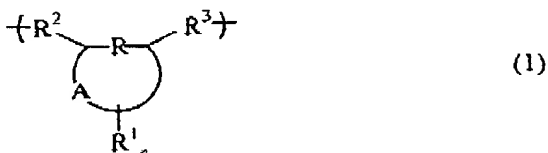
R^6 and R^{11} are, each independently, hydrogen or a straight alkyl group of 1 to 10 carbon atoms,

R^7 is hydrogen, a straight alkyl group of 1 to 10 carbon atoms, or $-C(=O)-R^{12}$,

R^{12} is hydrogen or a straight alkyl group of 1 to 10 carbon atoms, and

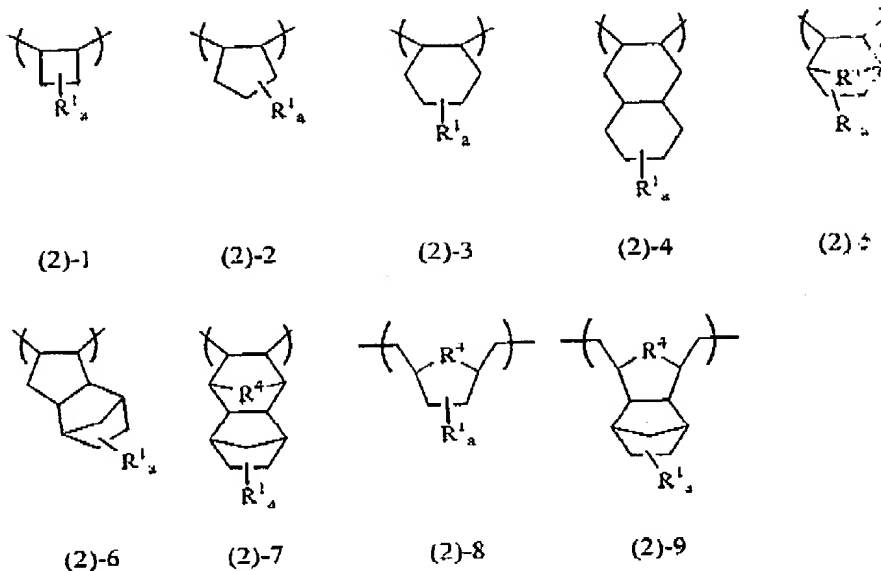
R^8 is an alkylene group of 1 to 10 carbon atoms.

13. +2. (Currently Amended): A polymer comprising recurring units of a compound of formula (1).



wherein A is a divalent aliphatic or alicyclic hydrocarbon group of 2 to 20 carbon atoms, R^1 is an alkyl group containing at least one fluorine atom, and which optionally contains a hetero atom, "a" is a positive number of 1 to 3, R is a single bond, methylene group, oxygen atom, NH group or sulfur atom, and R^2 and R^3 each are a single bond or methylene group;

wherein the recurring units of formula (1) are selected from formulae (2)-1, (2)-2, (2)-3, (2)-4, (2)-5, (2)-6, (2)-7, (2)-8, and (2)-9

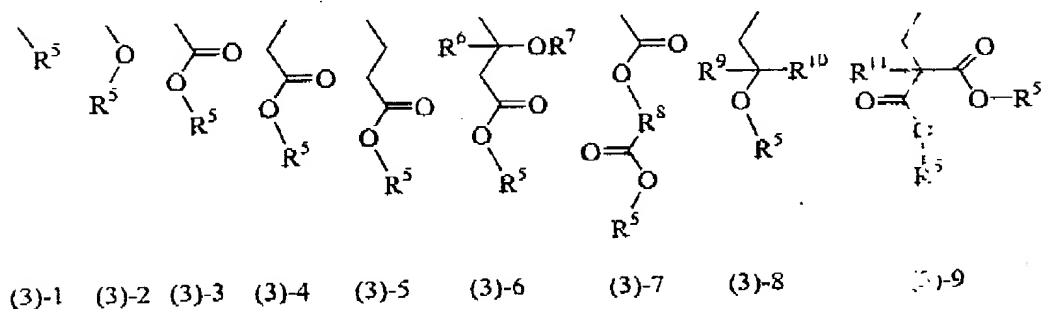


wherein

R^2 is a methylene group, oxygen atom, NH group or sulfur atom,

"a" is a positive number of 1 to 3,

R^1 is selected from formulae (3)-1, (3)-2, (3)-3, (3)-4, (3)-5, (3)-6, (3)-7, (3)-8, and (3)-9



R^6 and R^{11} are, each independently, hydrogen or a straight alkyl group of 1 to 10 carbon atoms.

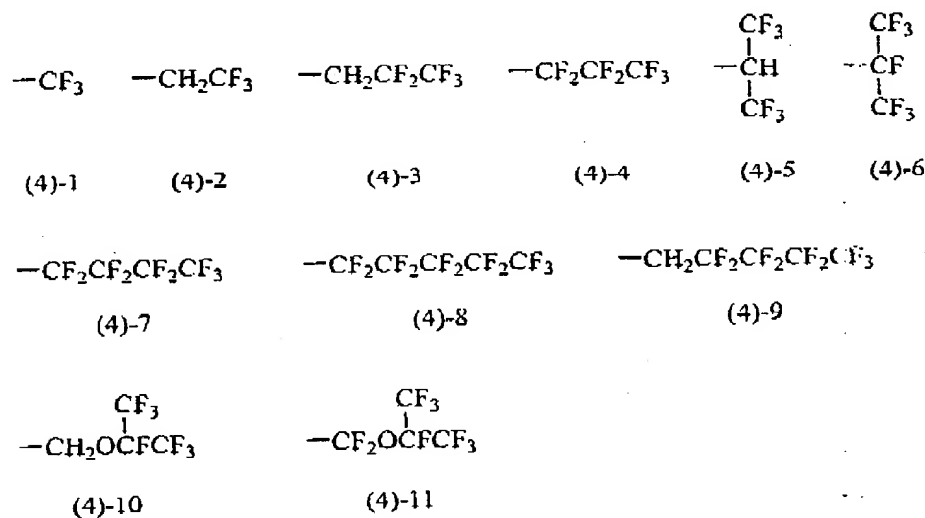
R⁷ is hydrogen, a straight alkyl group of 1 to 10 carbon atoms, or -C(=O)-R¹²,

R¹² is hydrogen or a straight alkyl group of 1 to 10 carbon atoms, and

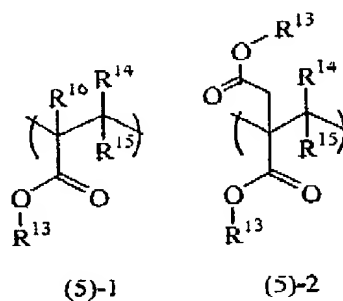
R⁸ is an alkylene group of 1 to 10 carbon atoms,

wherein either one or both of R⁹ and R¹⁰ are alkyl groups of 1 to 5 carbon atoms having at least one fluorine atom substituted thereon, and

according to claim 10, wherein R⁵ is selected from formulae (4)-1, (4)-2, (4)-3, (4)-4, (4)-5, (4)-6, (4)-7, (4)-8, (4)-9, (4)-10 and (4)-11



~~14. 13.~~ (Currently Amended): A polymer of claim 1, further comprising recurring units of a (meth)acrylic compound of formula (5)-1 or (5)-2

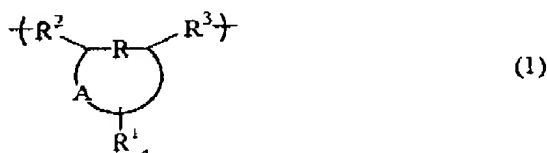


wherein

R^{13} is an acid labile group, and

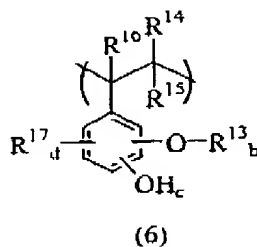
R^{14} , R^{15} and R^{16} are, each independently, a hydrogen atom, fluorine atom, or a straight, branched or cyclic alkyl group of 1 to 10 carbon atoms, which are, each independently, optionally substituted with fluorine.

15. 14. (Currently Amended) A polymer comprising recurring units of a compound of formula (1):



wherein A is a divalent aliphatic or alicyclic hydrocarbon group of 2 to 20 carbon atoms, R^1 is an alkyl group containing at least one fluorine atom, and which optionally contains a hetero atom, "a" is a positive number of 1 to 3, R is a single bond, methylene group, oxygen atom, NH group or sulfur atom, and R^2 and R^3 each are a single bond or methylene group.

said compound of claim 1, further comprising recurring units of a styrene compound of formula (6)



wherein

R^{13} is an acid labile group,

R^{14} , R^{15} and R^{16} are, each independently, a hydrogen atom, fluorine atom, or a straight, branched or cyclic alkyl group of 1 to 10 carbon atoms, which are, each independently, optionally

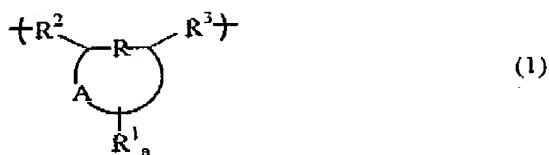
substituted with fluorine,

R^{17} is a hydrogen atom, fluorine atom, or a straight, branched or cyclic alkyl group of 1 to 10 carbon atoms, which is optionally substituted with fluorine,

b is a positive number of 1 to 5, and

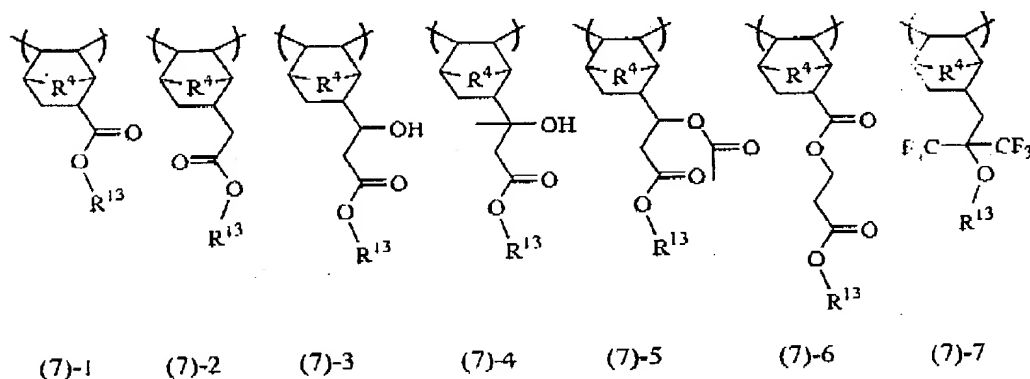
c and d are, each independently, 0 or a positive number of 1 to 4.

16-15. (Currently Amended): A polymer comprising recurring units of a compound of formula (1):



wherein A is a divalent aliphatic or alicyclic hydrocarbon group of 2 to 20 carbon atoms, R^1 is an alkyl group containing at least one fluorine atom, and which optionally contains a hetero atom, "a" is a positive number of 1 to 3, R is a single bond, methylene group, oxygen atom, NH group or sulfur atom, and R^2 and R^3 each are a single bond or methylene group.

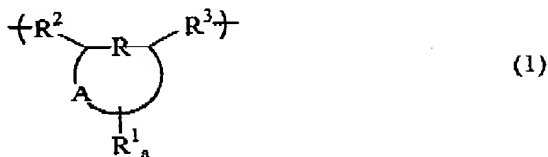
said compound of claim 1, further comprising recurring units of a norbornane compound selected from formulae (7)-1, (7)-2, (7)-3, (7)-4, (7)-5, (7)-6, and (7)-7



wherein

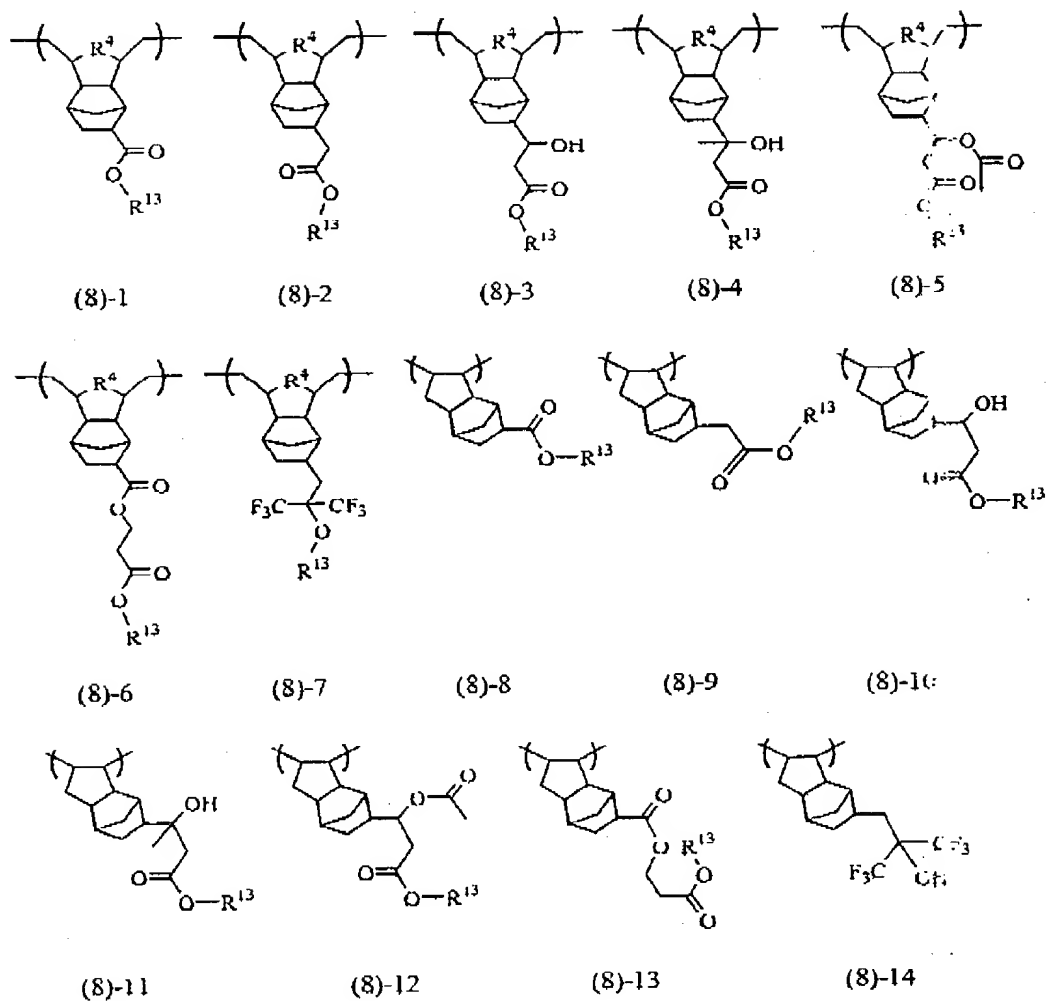
R^4 is a methylene group, oxygen atom, NH group or sulfur atom, and R^{13} is an acid labile group.

17. 46. (Currently Amended): A polymer comprising recurring units of a compound of formula (1);



wherein A is a divalent aliphatic or alicyclic hydrocarbon group of 2 to 20 carbon atoms, R¹ is an alkyl group containing at least one fluorine atom, and which optionally contains a hetero atom, "a" is a positive number of 1 to 3, R is a single bond, methylene group, oxygen atom, NH group or sulfur atom, and R² and R³ each are a single bond or methylene group.

said compound of claim 1, further comprising recurring units of a tricyclodecene compound selected from formulae (8)-1, (8)-2, (8)-3, (8)-4, (8)-5, (8)-6, (8)-7, (8)-8, (8)-9, (8)-10, (8)-11, (8)-12, (8)-13, and (8)-14

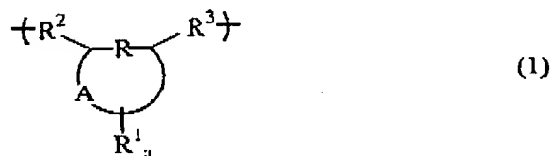


wherein

R⁴ is a methylene group, oxygen atom, NH group or sulfur atom, and

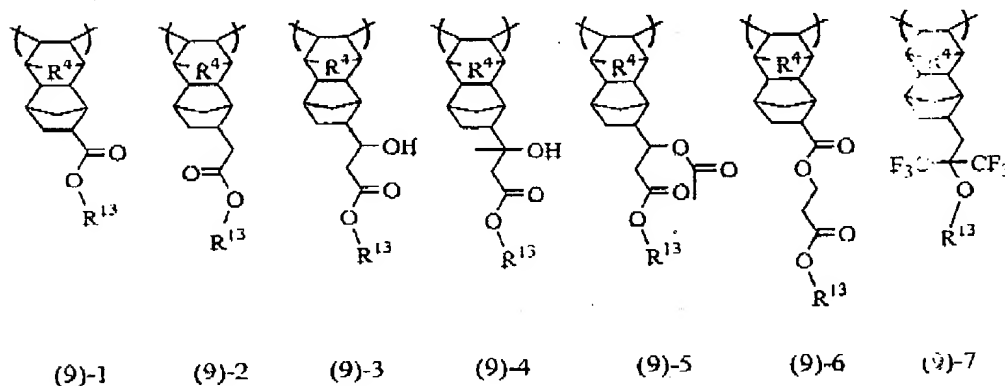
R¹³ is an acid labile group

18. 47. (Currently Amended): A polymer comprising recurring units of a compound of formula (1):



wherein A is a divalent aliphatic or alicyclic hydrocarbon group of 2 to 20 carbon atoms, R¹ is an alkyl group containing at least one fluorine atom, and which optionally contains a hetero atom, "a" is a positive number of 1 to 3, R is a single bond, methylene group, oxygen atom, NH group or sulfur atom, and R² and R³ each are a single bond or methylene group.

said compound of claim 1, further comprising recurring units of a tetracyclododecene compound selected from formulae (9)-1, (9)-2, (9)-3, (9)-4, (9)-5, (9)-6, and (9)-7

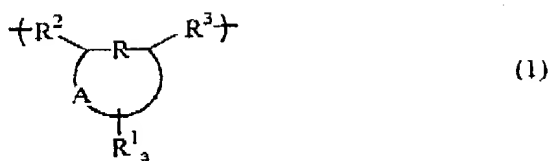


wherein

R³ is a methylene group, oxygen atom, NH group or sulfur atom, and

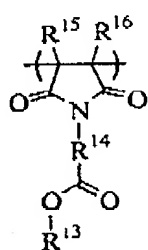
R¹³ is an acid labile group.

19. 48. (Currently Amended): A polymer comprising recurring units of a compound of formula (1):

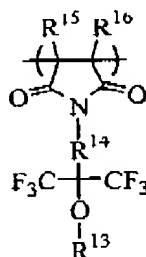


wherein A is a divalent aliphatic or alicyclic hydrocarbon group of 2 to 20 carbon atoms, R¹ is an alkyl group containing at least one fluorine atom, and which optionally contains a hetero atom, "a" is a positive number of 1 to 3, R is a single bond, methylene group, oxygen atom, NH group or sulfur atom, and R² and R³ each are a single bond or methylene group,

said compound of claim 4, further comprising recurring units of a maleimide compound of formula (10)-1 or (10)-2



(10)-1



(10)-2

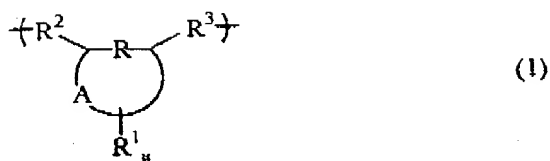
wherein

R¹³ is an acid labile group,

R¹⁴ is a single bond or an alkylene group of 1 to 10 carbon atoms, and

R¹⁵ and R¹⁶ are, each independently, hydrogen, fluorine, methyl or trifluoromethyl,

20. 49. (Currently Amended): A polymer comprising recurring units of a compound of formula (1):



wherein A is a divalent aliphatic or alicyclic hydrocarbon group of 2 to 20 carbon atoms, R¹ is an alkyl group containing at least one fluorine atom, and which optionally contains a hetero atom, "a" is a positive number of 1 to 3, R is a single bond, methylene group, oxygen atom, NH group or sulfur atom, and R² and R³ each are a single bond or methylene group.

said compound of claim 1, further comprising recurring units of a vinyl alcohol compound of formula (11)



wherein

R¹³ is an acid labile group, and

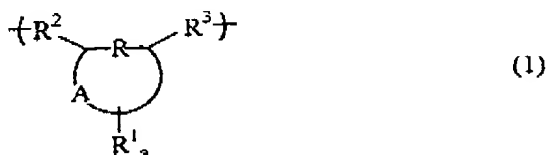
R¹⁴, R¹⁵ and R¹⁶ are, each independently, a hydrogen atom, fluorine atom, or a straight, branched or cyclic alkyl group of 1 to 10 carbon atoms, which are, each independently, optionally substituted with fluorine.

21. 20. (Currently Amended): A polymer according to claim 1, wherein said polymer has having a weight average molecular weight of 1,000 to 1,000,000.

22. 21. (Currently Amended): In a process of preparing a polymer, the improvement wherein a monomer of formula (1) of claim 1 is used.

23. 22. (Currently Amended): In a process of forming a resist composition or a resist pattern, the improvement wherein a polymer of claim 1 is used.

24. (New). A chemically amplified positive resist composition comprising
 (A) a polymer comprising recurring units of a compound of formula (1):

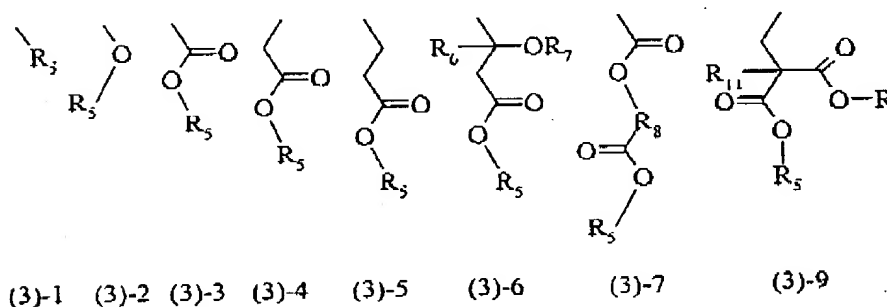


wherein A is a divalent aliphatic or alicyclic hydrocarbon group of 2 to 20 carbon atoms, R^1 is an alkyl group containing at least one fluorine atom, and which optionally contains a hetero atom, "a" is a positive number of 1 to 3, R is a single bond, methylene group, oxygen atom, NH group or sulfur atom, and R^2 and R^3 each are a single bond or methylene group,

- (B) an organic solvent,
 (C) a photoacid generator, and
 (D) a dissolution inhibitor.

25. (New). A polymer of claim 1, wherein

R^1 is selected from formulae (3)-1, (3)-2, (3)-3, (3)-4, (3)-5, (3)-6, (3)-7, and (3)-9



R^5 is a fluorinated alkyl group which optionally contains an ether or ester bond
 R^6 and R^{11} are, each independently, hydrogen or a straight alkyl group of 1 to 10 carbon atoms,
 R^7 is hydrogen, a straight alkyl group of 1 to 10 carbon atoms, or $-C(=O)-R^{12}$,
 R^{12} is hydrogen or a straight alkyl group of 1 to 10 carbon atoms, and

R^{*} is an alkylene group of 1 to 10 carbon atoms.

26. (New): A polymer according to claim 25, further comprising recurring units containing acid labile groups.

27. (New): A chemically amplified resist composition comprising a polymer according to claim 25.

28. (New): A chemically amplified positive resist composition comprising
(A) the polymer of claim 25,
(B) an organic solvent, and
(C) a photoacid generator.

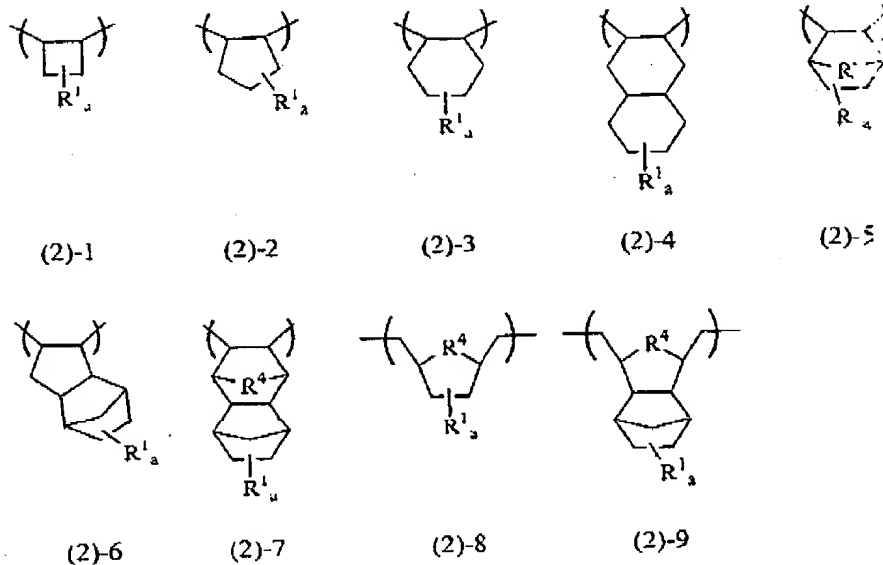
29. (New): A resist composition according to claim 28, further comprising a basic compound

30. (New): A resist composition according to claim 28, further comprising a dissolution inhibitor.

31. (New): A process for forming a resist pattern comprising the steps of:
applying a resist composition according to claim 28 onto a substrate to form a coating,
heat treating the coating and then exposing it to high-energy radiation having a wavelength of up to 180 nm or electron beams through a photo mask, and
optionally heat treating the exposed coating and developing it with a developer.

32. (New): A polymer of claim 25, wherein R is a single bond or methylene.

33. (New): A polymer of claim 1, wherein the recurring units of formula (1) are selected from formulae (2)-1, (2)-2, (2)-3, (2)-4, (2)-5, (2)-6, (2)-7, (2)-8, and (2)-9



wherein

R^4 is a methylene group, oxygen atom, NH group or sulfur atom, and

"a" is a positive number of 1 to 3